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### The Effect of Camera Angle and Investigator Bias on Perceptions of Eyewitness Evidence

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MONTCLAIR STATE UNIVERSITY

The Effect of Camera Angle and Investigator Bias  
on Perceptions of Eyewitness Evidence

by

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A Master's Thesis Submitted to the Faculty of  
Montclair State University

In Partial Fulfillment of the Requirements

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THE EFFECT OF CAMERA ANGLE AND INVESTIGATOR BIAS ON  
PERCEPTIONS OF EYEWITNESS EVIDENCE

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Montclair State University

A thesis submitted in fulfillment of the requirements for the degree of:

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## Abstract

Police departments are increasingly videotaping lineup identifications with eyewitnesses. This study investigated the effects of videotaping lineups on mock-juror perceptions of eyewitness evidence. Seventy-five participants watched a video depicting a lineup between an investigator and a witness and subsequently answered questions designed to measure their perceptions of the witness, the investigator, and the lineup. Two variables were manipulated. Participants watched a videotaped lineup that did or did not depict investigator bias, and participants watched the lineup from one of three camera angles: witness focus, investigator focus, or equal focus. The results of this study provided strong evidence that mock jurors are adept at detecting investigator bias when they see it, regardless of the camera angle. Implications for recording eyewitness evidence are discussed.



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## The Effect of Camera Angle and Investigator Bias on Perceptions of Eyewitness Evidence

The advent of DNA technology has revolutionized criminal investigations. With this tool police have the ability to solve crimes with little more than invisible genetic trace evidence left at a crime scene. Moreover, with the nation's ever expanding DNA database (e.g., the Combined DNA Index System [CODIS]), investigators are able to solve cold cases and connect crimes across vast geographical distances. Unfortunately, DNA technology has also revealed stunning shortfalls in the administration of justice. For example, the Innocence Project, a non-profit organization that provides legal aid and post-conviction DNA testing for inmates contesting their convictions, has helped exonerate 311 people to date (see [innocenceproject.org](http://innocenceproject.org)). An analysis of these exonerations reveals that mistaken eyewitness identification played a role in approximately 75% of these wrongful convictions, leading legal psychologists and scholars to conclude that mistaken eyewitness identification is the leading cause of wrongful conviction in the United States.

Factors that influence the reliability of eyewitness testimony generally fall into two categories: estimator variables and system variables (Wells, 1978). Estimator variables are factors that police have little or no control over, such as lighting, distance, and the presence of a weapon during the crime (i.e., *weapon focus*, see Steblay, 1992). System variables, in contrast, are factors that influence the reliability of eyewitness testimony that police do have control over. These include factors such as lineup presentation, lineup content and format, interview questions, and pre-and-post lineup instructions for witnesses. Understandably, most of the research on eyewitness testimony

has focused on system variables because recommendations drawn from such research can be easily implemented by police and added to policy recommendations for the conduct of eyewitness investigations (should the police choose to do so).

Unfortunately, police departments and law enforcement policy organizations (e.g., the National Institute of Justice) have historically been slow to adopt eyewitness reforms. This is probably due to the fact that most system variable research has focused on police behavior, and has in large part been aimed at reducing investigator bias (i.e., managing police behavior to reduce biasing and prejudicial police behaviors that can influence witness decision making). It was only after high profile DNA exonerations—and the undeniable evidence pointing to the fallibility of eyewitness evidence—that police began to initiate reforms. The State of New Jersey was one of the first (and is arguably the most progressive) jurisdictions to initiate eyewitness reforms. In 2001 the Attorney General of New Jersey issued sweeping reforms; the most substantive recommendations to come out of these reforms are described below.

### **Eyewitness Reforms**

#### **The Blind Administration of Lineups.**

To reduce the influence of investigator bias on eyewitness decision making, it is recommended that the investigator who administers the lineup be unaware of the suspect's identity. In other words, the person administering the lineup should not know who the suspect is. Investigator bias can manifest in many different ways. These include conscious and unconscious cues conveyed to the witness through both verbal and non-verbal behaviors. Perhaps the most well-studied form of investigator bias is that of post-identification feedback. Research has shown that reinforcing feedback given to a witness

after an identification (e.g., “good job”, “you identified the suspect”) can dramatically increase a witnesses’ confidence in his or her identification. Moreover, it can actually alter witness memory. In a study by Wells and Bradfield (1998), for example, mock witnesses who received confirming feedback at the time of their lineup identification reported significantly higher retrospective estimates of confidence at the time of their identification. In other words, confirming feedback altered witnesses’ recollections of their confidence at the time of the identification. Moreover, it was found that mock-witnesses who received reinforcing feedback reported getting a better look at the perpetrator’s face and had a longer view of the perpetrator compared to participants in the control conditions. Most, if not all, of the problems associated with investigator bias can be remediated by keeping the lineup administrator blind to the suspect’s identity.

### **The Use of Sequential Lineups.**

Lineups have traditionally been administered in a simultaneous format, in which all of the lineup’s photographs (the suspect’s photograph as well as distractor photographs) are presented simultaneously (i.e., all together). Research suggests that this format induces a relative judgment decision strategy in the witness, in which the witness compares the photographs with one another and chooses the picture who looks most like the suspect (from their memory), relative to the other photographs. In essence, the relative judgment induces a process of elimination. This strategy works well when the perpetrator is in the photo spread. However, when the police have placed an innocent suspect in the lineup, this decision strategy leads to a decline in accuracy. Consequently, researchers have recommended that police use a sequential lineup format, in which the photographs are presented sequentially (i.e., one at a time). Research suggests that the

sequential lineup format induces the witness to use an absolute judgment process.

Because the lineup photographs are presented one at a time, witnesses are more likely to compare each photograph to their memory of the perpetrator (rather than to the other photographs). Compared to simultaneous lineups, sequential lineups (and the use of absolute-decision strategy) substantially reduce false identifications without a significant corresponding decrease in correct identifications (when the perpetrator is in the lineup).

### **Pre-Lineup Instructions.**

When the police ask a witness to view a lineup, there is an implicit assumption on behalf of the witness that the police have apprehended the right suspect, and that the witness's "job" is to identify that person from the lineup. Of course, the police may think they have apprehended the right person (and often times they have), but there is always the possibility that the police have apprehended an innocent suspect. Psychologists recommend that prior to administering the lineup, the police should tell the witness that "the suspect may or may not be in the lineup." Alerting the witness to this fact reduces the pressure to guess and reduces reliance on the relative judgment decision strategy discussed above. This instruction has been found to dramatically reduce false identifications, without a corresponding decrease in correct identifications.

### **Recording Witness Confidence.**

A witness's confidence in their identification is perhaps the most important testimonial feature that jurors consider when determining the credibility of an eyewitness and making judgments about their identification accuracy. Unfortunately, research has demonstrated that there is generally a weak relationship between eyewitness confidence and accuracy, meaning that a witness's confidence in his or her identification generally

cannot be used to confirm post hoc the accuracy of their identification. Moreover, eyewitness confidence has been found to be quite malleable. Indeed, eyewitness confidence can increase over time (between the lineup identification and the subsequent criminal trial), due to exposure to investigator feedback (discussed above), witness preparation with the prosecution team, media exposure, and the retelling of the account with friends and family. To preserve eyewitness confidence, it is recommended that immediately after an identification has been made, and prior to making any statements to the witness about the relative accuracy of their identification or the outcome of the investigation, the investigator should record the witness's confidence (e.g., On a scale of 1 to 10, how confident are you in your identification of the suspect?). This confidence statement then becomes part of the evidentiary record and can protect against confidence malleability. For example, if at the time of identification the witness is 60% confident in their identification, but at the time of the trial claim to be 90% confident, the defense team can refer to the original confidence statement to gain an accurate indication of how confident the witness was prior to any subsequent influence.

### **Videotaping Eyewitness Identifications**

New Jersey's guidelines for collecting eyewitness evidence bring their policy in line with current research and standard best practices. Unfortunately, it is unclear to what extent these guidelines are actually practiced within New Jersey's law enforcement communities. There is currently no publically available information that would inform this issue, nor does it appear that there are any formal reporting mechanisms or standards that would require police to document, report, and/or publish such information, even by internal standards. Absent such information, one way to ensure that police are following



such guidelines is to videotape the lineups they administer. New Jersey does not require police to videotape lineups, nor does any other state (to our knowledge). However, many jurisdictions do videotape lineups, even if they have not yet adopted formal procedures for doing so (Detective Kristin Maier, Montclair State University Police Department, personal communication).

Given the ubiquitous nature of video recording in today's society, it is not unreasonable to assume that eventually most, if not all, police departments will videotape lineup delivery with witnesses. This inevitable practice has many implications for the justice system, and raises many empirical questions. Chief among these questions are: How does watching the administration of a lineup influence jurors' perceptions of eyewitness testimony? Does it influence the perceived credibility of the witness, or the investigator, or both? Does it influence juror's perceptions of the accused? Can jurors use videotaped lineup evidence to identify investigator bias? If the answer to these questions is "yes," what factors might moderate the influence of videotaped eyewitness evidence on juror-decision making?

### **Videotaping Police Interrogations**

The answers may be found by examining the policy and psychological literature on videotaping police interrogations. To be clear, police interrogations are qualitatively distinct from eyewitness identifications or interviews with cooperative witnesses. Police interrogations are designed to elicit confessions from suspects whom the police believe are lying. To that end, interrogations employ a series of sophisticated psychological tactics, including deception, blaming the victim, minimizing the moral and legal seriousness of the crime, and implying leniency in return for a confession. Relative to



conversations with cooperative witnesses, interrogations can be described as coercive; they are explicitly designed to convince a suspect that he or she should waive their constitutional right to remain silent. In short, they are designed to psychologically break a suspect's resistance to confessing, which often carries severe legal implications for the suspect.

It is only recently that police have initiated policies for recording interrogations. This change in policy, like changes to policies governing the collection of eyewitness evidence, can be traced to an increased awareness of wrongful convictions. According to the Innocence Project, false confessions have been a factor in approximately 25% of DNA exonerations (see [innocenceproject.org](http://innocenceproject.org)). Policies regarding the videotaping of interrogations were originally conceived to protect suspects (innocent and guilty alike) from coercive interrogation practices. However, despite an initial resistance by police to recording interrogations, they quickly realized that they have an added benefit: not only do they protect suspects from coercion; they protect the police from bogus accusations of coercion and brutality.

Research on videotaping interrogations reveals that there are moderating factors in how observers evaluate and subsequently render judgments based on that evidence. Daniel Lassiter and his colleagues have conducted over a dozen studies demonstrating that the focus of the interrogation room camera can affect a "camera perspective bias" on evaluations of suspect confessions (see Lassiter, Ratcliff, Ware, & Irvin, 2006, for a review). Their research has consistently found that how the interrogation is recorded can significantly affect observers' judgments of this interaction. Specifically, this research has demonstrated that when the video camera is focused exclusively on the suspect (the

default camera angle of many police interrogations), observers are significantly more likely to perceive the suspect's confession as voluntary. In contrast, when the camera angle is focused exclusively on the investigator, observers are more likely to perceive that the confession was coerced (less voluntary). Interestingly, when the camera is focused on both parties (equally on the suspect and on the investigator), this effect tends to wash out. For this reason, currently policy guidelines recommend that interrogations should be recorded with an "equal focus" perspective, so that both parties are visible to observers.

Lassiter and his colleagues have argued that the camera perspective bias results from *illusory causation*, a tendency for observers to attribute the outcome of a given situation to the most salient actor in that situation (McArthur, 1980; Taylor & Fiske 1975). For example, when the camera is focused on the suspect and the interrogator is absent from view, the increased salience of the suspect creates the "illusion" that the suspect is the active actor in the interrogation (which may or may not be true), increasing the likelihood that observers will attribute his or her confession to a willful act rather than the situational pressures inherent in police interrogations. The phenomenological basis for illusory causation remains unclear. However, recent research suggests it is rooted in perceptual (e.g., encoding) rather than conceptual (e.g., interpretation) processing (Ratcliff, Lassiter, Schmidt, & Snyder, 2006).

### **The Current Study**

The current study was designed to determine if the findings from the interrogation literature (described above) generalize to videotaped lineup administrations. Participants watched a biased or an unbiased lineup administration from one of three camera angles: witness focused, investigator focused, or equal focused. Participants subsequently

rendered judgments about the video they watched. Thus, this study addressed three major questions:

- (I) Does the camera angle of videotaped lineups influence observers' perceptions of eyewitness evidence?
- (II) Can neutral observers (e.g., jurors) identify investigator bias in the context of eyewitness identification procedures?
- (III) Does the camera angle that records the lineup administration affect their ability to do so? In other words, does the camera angle moderate jurors' ability to identify investigator bias?

It was predicted that:

- (I) Participants would be more likely to identify investigator bias when the camera angle was focused exclusively on the investigator.
- (II) Participants would find the witness to be most credible when the camera was focused exclusively on the witness.
- (III) Participants would find the lineup administration to be most fair when the camera was focused equally on both the investigator and the witness.

## **Methods**

### **Participants**

Participants consisted of 240 individuals who accessed the study via a link to the website *psychsurveys.org*, a free online hosted survey site. From this group, seventy-five participants ( $M = 32$  years old,  $SD = 10$  years; 55% female, 34 % male) fully completed the study and all associated survey questions. These 75 individuals constituted the final study sample. Eighty-nine percent of survey respondents identified themselves as White

(non-Hispanic), far greater than the second-largest group (Asian, 5%). Participants were diverse, as they were recruited via word of mouth and through social media sites such as Facebook. They represented a variety of different vocations, ranging from software sales representatives to members of the clergy. The investigator posted a link to the study on her personal Facebook profile, encouraging others to “share” the link within their networks as well. All participants completed an online informed consent procedure before accessing the stimuli and subsequent survey questions. A copy of the consent document can be found in Appendix A.

### **Design**

This study employed a 2 (bias present vs. bias not present lineup administration) x 3 (witness focused vs. investigator focused vs. equal focused) between-subjects factorial design. Participants were randomly assigned to watch one of six videotaped lineup administrations and subsequently answered questions based on the specific video they viewed.

### **Video Stimuli and Manipulations**

**Investigator Bias.** In each condition, participants watched a video of an interaction between a female witness and a male police detective (i.e., investigator), who were sitting across a table from one another. The witness was seated at a table and the investigator introduced himself, sat down, and asked the witness to describe a robbery in which she was the victim.

In the condition that did not include investigator bias, the investigator conducted a lineup administration in precise accordance with the New Jersey Attorney General’s guidelines for conducting eyewitness investigations. Specifically, he administered a

sequential lineup, told the witness that the suspect who committed the crime may or may not be present in the lineup, and elicited a confidence statement from the witness after she made a positive identification from the photo array. Importantly, the investigator refrained from using body language or additional verbal dialogue that would pressure the witness into making a positive identification. A verbatim transcription of the dialogue between the witness and the investigator in this condition can be found in Appendix B.

In the condition that included investigator bias, the investigator did not conduct a sequential lineup, did not inform the witness that the suspect may or may not be present in the lineup, and did not record a confidence statement. While the absence of these features alone does not make for a biased lineup, in this condition the investigator also engaged in a number of verbal and non-verbal behaviors that we designed to pressure the witness into choosing the investigator's preferred suspect. These included telling the witness prior to the lineup that they had made an arrest and were confident in that arrest. When the witness seemed hesitant to choose anyone, the investigator impatiently tapped his pen on the table, breathed heavily and sighed, and told the witness to take another look at the photo spread. Additionally, after the witness had made an identification, he provided post-identification feedback to the witness regarding her decision (e.g., "Good job, that's our guy"). The lineup in this condition represented virtually everything the police are not supposed to do when administering a proper lineup. A verbatim transcription of the dialogue between the witness and the suspect in this condition can be found in Appendix C.

**Camera angle.** Both lineup administrations were filmed from three different camera angles. The witness focused angle focused exclusively on the witness (the

investigator was not in view). The investigator focused angle focused exclusively on the investigator (the witness was not in view). In the equal focused camera angle, both the witness and investigator were in view. Each video was shot with similar high-definition video cameras that ran simultaneously for the bias present and bias not present conditions. Each of the three cameras filmed from an equal distance away from the investigator/witness interaction.

### **Dependent Measures and Questionnaire**

After watching the video, participants subsequently rendered a number of judgments designed to tap their perceptions of (1) the witness, (2) the lineup administrator (the investigator), and (3) their global assessment of the lineup administration's fairness. Once they had viewed the video, they were not able to go back in the survey and watch it again. The questionnaire took approximately 25 minutes to complete, and consisted of 75 questions in total. Question order was not randomized between subjects.

The initial survey questions sought general reactions to the stimulus video. In "Part One" of the survey, they were asked to indicate if they believed that the eyewitness in the case made a correct decision in the identification task by indicating "yes" or "no". The next question required the participant to indicate how confident they were in their choice regarding the eyewitness decision, on a six-point scale ranging from "Not at all confident" to "100%". For all scale-type questions, a six-point scale was utilized to allow for the subject to "hedge" in their response—that is, not decide definitively in either direction, if they were not certain. The participant was then asked if they believed that the suspect in the case was guilty by again selecting "yes" or "no". The final two questions of

the first grouping required the participant to indicate both the probability that the eyewitness made a correct decision and the probability that the suspect was guilty by clicking on a spectrum, ranging from "Not at all probable" to "Extremely probable" on a 100-point gradient (note that specific numbers were not available to participants in this scale).

The next set of questions related to the subject's impressions of the Eyewitness. This section utilized six-point scales, from "Strongly Disagree" to "Strongly Agree". The same scale was provided for the statements in the next two sections, regarding impressions of the lineup and the investigator. The final two sections, prior to the demographic portion of the questionnaire, were designed to obtain information on the participants' impressions of both the eyewitness and the investigator. For each character, the subject was asked to choose a point on a spectrum to express the degree to which the eyewitness or investigator seemed to fit one side of the scale. Pairs such as "Immoral/Moral", "Respectable/Not respectable" and "Intelligent/Unintelligent" were used, in addition to other adjective pairs.

For reference, a complete copy of the questionnaire can be found in Appendix D. Also, the questions asked of participants are reproduced on tables summarizing means and standard deviations for all of the questions asked of participants. These tables can be found at the end of this manuscript.

## **Results**

The dependent variables used in this study are divided into three categories: (1) perceptions of the eyewitness, (2) perceptions of the investigator, and (3) perceptions of the lineup (measures for this latter variable were designed to provide a global assessment



of the lineup procedure as a whole). Each category consists of multiple dependent variables. Typically, Multivariate Analysis of Variance (MANOVA) is used to analyze continuous data across multiple dependent measures. However, one of the underlying assumptions of MANOVA is that the variables are uncorrelated (homogeneity of variances and covariance; see Field, 2013). An analysis of the bivariate correlations within each category revealed strong and consistent correlations among variables (ranging from  $r = .27$  to  $r = .83$ ). Therefore the decision was made to analyze the data for this study using univariate Analysis of Variance (ANOVA) procedures. All analyses were tested at an alpha level of .05. All pairwise and post-hoc comparisons were corrected for family-wise error.

### **Perceptions of the Eyewitness**

Means and standard deviations for variables tapping participants' perceptions of the witness across the investigator bias and camera angle conditions are presented in Table 3 and Table 4, respectively.

When asked to indicate agreement as to whether the witness would be persuasive to a jury, a significant interaction was found between the investigator bias and camera angle conditions,  $F(5,73) = 4.41, p = .02, \eta^2 = .11$ . In both the equal focused and investigator focused conditions, participants were more likely to agree with this statement when bias was present. However, when the camera angle was focused on the witness, participants were more likely to agree with this statement when bias was not present. A significant interaction was also detected when participants were asked to indicate agreement with the statement that if they were a jury member, they would *not believe this witness*,  $F(5,73) = 4.64, p = .01, \eta^2 = .12$ . Consistent with the previous interaction effect,



participants in the equal-focused and investigator-focused conditions indicated greater agreement with this statement when bias was present, but were less likely to indicate agreement in the witness-focused condition when bias was present. In short, both of these measures indicate that the witness was most credible when the camera angle was focused on the witness and when the lineup was unbiased.

An additional interaction effect was found in response to the question regarding whether the eyewitness seemed unsure about her decision,  $F(5,73) = 3.27, p = .04, \eta^2 = .19$ . There was no difference in ratings between biased and unbiased lineups when participants saw an equal focus perspective. However, in the investigator focused condition, participants were more likely to agree with this statement when bias was not present, whereas participants were more likely to agree with this statement in the witness focused condition when bias *was* present.

### **Perceptions of the Investigator**

Means and standard deviations for variables tapping participants' perceptions of the investigator across the investigator bias and camera angle conditions are presented in Table 1 and Table 2, respectively. With one exception (described below), no significant interactions were found between these variables (all  $ps > .05$ ).

When asked to indicate the degree to which they thought the investigator was a good investigator for this case, participants indicated significantly greater agreement when the lineup was unbiased compared to when it was biased,  $F(5,72) = 4.30, p = .04, \eta^2 = .06$ . Similarly, when asked if they thought the investigator was biased, participants indicated significantly greater agreement when the lineup was biased compared to when it was not,  $F(5,72) = 37.23, p = .001, \eta^2 = .35$ .

When asked if it was clear that the investigator wanted the witness to choose the suspect, participants indicated significantly stronger agreement when the lineup was biased compared to when it was not,  $F(5,72) = 46.09, p = .001, \eta^2 = .40$ . Moreover, when asked to indicate the extent to which the witness was pressured into her decision by the investigator, participants perceived greater pressure on the witness when they saw a biased lineup compared to an unbiased lineup  $F(5,72) = 40.16, p = .001, \eta^2 = .37$ .

When asked to indicate whether they thought the investigator put a lot of pressure on the eyewitness, participants perceived more pressure on the witness when they saw a biased rather than an unbiased lineup,  $F(5,72) = 38.36, p = .001, \eta^2 = .36$ . The interaction between investigator bias and camera angle on this measure was significant,  $F(5,72) = 3.24, p = .04, \eta^2 = .08$ . There were no differences between equal focused and investigator-focused conditions; in both conditions, participants were more likely to perceive more pressure on the witness when bias was present compared to when it was not. However, participants were less likely to perceive investigator bias in the witness-focused condition.

When asked whether the investigator was unbiased in administering the lineup, participants were more likely to judge the investigator as biased in the bias present lineup condition compared to the bias not present lineup condition  $F(5,72) = 35.46, p = .001, \eta^2 = .34$ . Similarly, when asked to indicate whether they thought the investigator was very fair in this lineup task, participants provided greater agreement when they saw an unbiased lineup compared to a biased lineup,  $F(5,72) = 28.02, p = .004, \eta^2 = .30$ .

When asked to indicate whether they would want this investigator to administer a lineup in their case if they were accused of a crime, participants were more likely to agree

when the lineup was unbiased than when it was biased,  $F(5,72) = 14.05, p = .001, \eta^2 = .17$ . When asked whether the investigator should conduct more lineups, participants were more likely to believe he should when bias was not present compared to when it was,  $F(5,72) = 11.51, p = .001, \eta^2 = .15$ .

Finally, when asked to indicate agreement with the statement that the investigator did not put any pressure on the witness, participants returned higher ratings of agreement when the lineup was unbiased compared to when it was biased,  $F(5,72) = 38.36, p = .001, \eta^2 = .36$ . When asked to indicate agreement as to whether the witness probably didn't feel pressure to make a decision by the investigator, participants were more likely to agree with the statement when the lineup was unbiased compared to when it was biased,  $F(5,72) = 31.66, p = .001, \eta^2 = .32$ .

### **Perceptions of the Lineup**

Means and standard deviations for variables tapping participants' perceptions of the lineup across the investigator bias and camera angle conditions are presented in Table 5 and Table 6, respectively. No significant interactions were found between these variables (all  $ps > .05$ ).

Participants judged the lineup to be less fair when viewing the lineup from an equal camera angle perspective, though this effect was only marginally significant,  $F(5,73) = 2.99, p = .057, \eta^2 = .49$ . When asked to judge the degree to which the lineup was biased, however, there was a significant main effect of investigator bias such that participants judged the lineup to be significantly more biased when bias was present compared to when it was not,  $F(5,73) = 82.26, p = .005, \eta^2 = .11$ . A significant main effect for camera angle was also detected,  $F(5,73) = 3.74, p = .03, \eta^2 = .10$ . Pairwise

comparisons revealed that participants perceived the lineup to be more biased when the camera angle was focused on the investigator compared to when it was focused on the witness,  $p = .01$ , or when the camera was focused equally on both actors,  $p = .03$ .

When asked whether participants thought the lineup was conducted properly, there was a significant main effect of investigator bias such that biased lineups were more likely to be judged as improper compared to unbiased lineups,  $F(5,72) = 4.42, p = .04, \eta^2 = .06$ . A similar measure designed to tap whether participants thought the lineup procedure was a "good" procedure also produced a significant main effect, such that participants who saw a an unbiased lineup administration were significantly more likely to perceive the procedure as good compared to a biased lineup,  $F(5,72) = 4.34, p = .04, \eta^2 = .06$ .

When asked to judge whether the lineup was fair to the suspect, participants perceived the lineup as being significantly less fair to the suspect when bias was present compared to when it was not,  $F(5,72) = 6.08, p = .02, \eta^2 = .06$ .

When asked to judge whether the lineup should have been conducted differently, participants provided significantly higher ratings of agreement with this statement when viewing a biased compared to an unbiased lineup,  $F(5,72) = 8.58, p = .005, \eta^2 = .11$ . Finally, when asked to judge whether the lineup was unfair, main effects were found for both investigator bias and camera angle manipulations. Participants judged the lineup to be less fair when bias was present compared to when it was not  $F(5,72) = 9.09, p = .004, \eta^2 = .12$ . In terms of camera angle, participants perceived the lineup to be most fair when the camera angle was focused on the witness compared to when it was focused on the

investigator,  $F(5,72) = 3.26, p = .04, \eta^2 = .09$ . No differences were found between equal focused and witness focused conditions ( $ps > .05$ ).

No differences were found for either of the questions that asked participants to indicate the extent that the lineup was an easy task, or if the lineup looked difficult (all  $ps > .05$ ).

Overall, these results demonstrate that participants are adept at detecting investigator bias in the lineup context. Interestingly, the two measures designed to tap lineup fairness revealed the lineups were perceived to be less fair when the camera was trained on the investigator compared to when it was trained on the witness, or when the camera angle was focused equally on both actors.

### **Discussion**

The current study had three goals. The first goal was to determine if witnesses could identify investigator bias in the lineup context. The second goal was to assess whether the camera angle effect (found in the interrogation literature) generalized to the lineup context. The third goal was to determine if the camera angle manipulation moderated participants' ability to identify investigator bias and differentially influence their perceptions of the witness, investigator, and the fairness of the lineup. The primary prediction for the outcome was an interaction effect, such that the witnesses would judge the lineup administration to be more fair when the camera was focused on the witness compared to the investigator. This prediction was partially supported by the results.

The primary finding from this study was that participants are quite adept at identifying investigator bias when they see it. Participants consistently rated biased lineups as more unfair and rendered less favorable impressions of the investigator when

the lineup was biased compared to when it was not. This was largely true regardless of the camera angle. Interestingly, few interaction effects were found. The significant interaction effects indicate that participants found the witness to be the most credible when the camera angle was focused on the witness and the lineup was unbiased.

This interaction makes sense given that participants could identify investigator bias when it was present: the witness's identification was given more credibility by participants when the lineup was unbiased and when the camera was focused exclusively on the witness. This finding is consistent with the interrogation literature's finding that the outcome of the situation (in this case the identification of a suspect) is attributable to the person who is most salient within an interpersonal interaction. However, the interaction effects found in this study were inconsistent across the dependent measures, making generalizations difficult. Also, given the low sample size used in this study, and the large number of dependent measures, it is possible that these interactions were spurious in nature. Clearly more research is needed to conclusively demonstrate that the camera angle affects observer's judgments on eyewitness credibility.

There were a number of limitations to this study worth mentioning. First, this study experienced a high rate of subject attrition. Only 75 of 240 participants completed the study, reflecting an attrition rate of 69%. It is unclear why so many participants failed to complete the study, but the study took an average of 25 minutes to complete, which simply may have been too long for most participants to sit through—especially given that participation was voluntary and no incentive was offered. Future research that employs this paradigm should find ways to ensure an acceptable level of subject participation, perhaps by reducing the number of questions asked of participants. It is important to note



that the relatively small sample size (due to the large attrition rate) could also have resulted in lower statistical power. There were six experimental conditions in this study, meaning that each condition consisted of approximately 13 participants. On the other hand, a number of significant effects were found with moderate effect sizes. In addition, a major strength of this study lies in the fact that the majority of participants were culled from a subject pool other than the ubiquitous psychology 101 students that make up the subjects for many psychological research studies.

Two additional limitations both involve the external validity of the study. First, this study only employed one stimulus set. To elaborate, participants saw 1 of 6 lineup administration videos. However, all of the videos included the same eyewitness (a young white female) and the same lineup administrator (a middle aged white male). It is possible that the idiosyncratic characteristics of these actors (e.g., their appearance, demeanor, mannerisms) could have influenced the outcome measures. A more valid approach would have been to use two sets of actors (4 actors in total; 2 witnesses and 2 lineup administrators). In this scenario, the stimuli set would become an additional independent variable in the study. That is, participants would see one of the two stimuli sets and differences on the outcomes measures would be compared within this factor. If no differences were found, the influence of idiosyncratic differences due to the actors could be ruled out and the study would collapse across stimuli sets to analyze the rest of the data. This practice, known as stimulus sampling, would have increased the external validity of the study.

An additional limitation of this study reflects the fact that the stimuli used in this study relied on actors to execute a highly scripted interaction designed to reflect a real

lineup administration. This method was chosen for the sake of experimental control and increased the internal validity of the study. However, the interaction was staged and thus did not reflect an authentic eyewitness identification. A more externally valid approach (though one which would sacrifice some experimental control of the interaction) would have been to use a real eyewitness. In this scenario, a participant recruited to the study would have been shown a video of a staged crime and then been asked to view a lineup and make a decision—thus their decision, confidence, accuracy, etc., would have been authentic, thus increasing the external validity of the study.

Future research on this topic could take several directions. The most obvious direction for future research is to study mock-juror perceptions of real eyewitness identifications made by mock-witnesses, which would increase the external validity of the study. Even better, it would be ideal to study lineup administrations by real police officers using real eyewitnesses in real crimes. This scenario is unrealistic, however, because if police do record eyewitness identifications they typically do not do so from three different camera angles.

An additional line of research on this topic would be to examine how the use of videotaped lineups influences the outcome of the ultimate dependent measure in criminal trials; namely, whether a defendant is found guilty or not guilty at trial. To do so, participants in such a study would be given a trial transcript in which both the prosecution and defense present trial evidence. Part of the evidentiary record would include testimony by an eyewitness regarding the event they witnessed and testimony regarding their subsequent identification of the suspect. In one manipulation, the eyewitness evidence would consist solely of this testimony. In the other, this testimony



would be accompanied by a video of the lineup identification. It is possible, and perhaps even likely, that jurors would find this evidence compelling and would thus be more likely to convict the defendant compared to when the witness's testimony is unaccompanied by a videotaped account of the identification.

In conclusion, the current study provided strong evidence that lay observers are adept at spotting investigator bias when they see it in the lineup context. The study did not, however, provide compelling evidence that the camera angle effect found in the interrogation literature translates to the lineup context. Clearly, more research, as well as more externally valid research, is needed on this topic. Regardless, in the absence of such evidence, and given the literature on videotaping interrogations, it nevertheless seems prudent for investigators to videotape their lineup identifications and also do so from an equal focused camera perspective.

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Table 1. Perceptions of the Investigator: Bias Present and Bias Not Present Lineup Administrations

Question	M (SD)	
	Bias Present	Bias Not Present
The investigator was a good investigator for this case.	2.80 (1.23)	3.37 (1.05)
I thought the investigator was biased.	4.40 (1.42)	2.82 (0.89)
It was clear that the investigator wanted the eyewitness to choose the suspect.	4.39 (1.42)	2.38 (1.09)
The eyewitness was pressured into her decision by the investigator.	3.64 (1.33)	1.97 (0.96)
The investigator put a lot of pressure on the eyewitness.	3.31 (1.41)	1.77 (0.78)
The investigator was unbiased in administering this lineup.	2.81 (1.41)	4.46 (1.05)
The investigator was very fair in this lineup task.	2.83 (1.38)	4.29 (0.93)
If I were accused of a crime, I would want this investigator to administer my lineup.	2.11 (1.28)	3.29 (1.35)

This investigator was not very good at his job.	3.68 (1.45)	3.16 (1.07)
In my opinion, the investigator should conduct more lineups.	2.86 (1.46)	3.92 (1.16)
The investigator did not put any pressure on the eyewitness.	3.03 (1.46)	4.79 (0.95)
The witness probably didn't feel pressured into a decision by the investigator.	2.89 (1.34)	4.41 (0.94)

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Table 2. Perceptions of the Investigator: Equal Focused, Investigator Focused, and Witness Focused Lineup Administrations

Question	M (SD)		
	Equal Focused	Investigator Focused	Witness Focused
The investigator was a good investigator for this case.	3.04 (1.15)	2.92 (1.32)	3.31 (1.05)
I thought the investigator was biased.	3.43 (1.50)	3.80 (1.47)	3.46 (1.21)
It was clear that the investigator wanted the eyewitness to choose the suspect.	3.33 (1.71)	3.24 (1.71)	3.46 (1.45)
The eyewitness was pressured into her decision by the investigator.	2.79 (1.41)	2.84 (1.62)	2.69 (1.26)
The investigator put a lot of pressure on the eyewitness.	2.54 (1.38)	2.72 (1.59)	2.27 (1.08)
The investigator was unbiased in administering this lineup.	3.88 (1.48)	3.44 (1.47)	3.69 (1.52)

The investigator was very fair in this lineup task.	3.43 (1.38)	3.42 (1.47)	3.88 (1.27)
If I were accused of a crime, I would want this investigator to administer my lineup.	2.57 (1.31)	2.50 (1.64)	3.08 (1.32)
This investigator was not very good at his job.	3.35 (1.11)	3.65 (1.53)	3.24 (1.20)
In my opinion, the investigator should conduct more lineups.	3.17 (1.15)	3.33 (1.66)	3.68 (1.38)
The investigator did not put any pressure on the eyewitness.	3.83 (1.64)	4.00 (1.61)	4.04 (1.31)
The witness probably didn't feel pressured into a decision by the investigator.	3.52 (1.53)	3.72 (1.46)	3.81 (1.17)

Table 3. Perceptions of the Witness: Bias Present and Bias Not Present Lineup Administrations

Question	M (SD)	
	Bias Present	Bias Not Present
The eyewitness probably got a pretty good view of the perpetrator.	3.56 (1.00)	3.36 (1.25)
The eyewitness in this case probably made an incorrect decision.	4.00 (1.01)	3.92 (1.08)
The eyewitness made a poor decision.	3.80 (1.32)	3.74 (1.16)
The eyewitness made a good decision in this case.	3.03 (1.16)	3.08 (1.04)
I thought the eyewitness was very certain in the decision she made.	2.33 (1.33)	2.24 (1.40)
The eyewitness seemed hesitant in her decision.	5.14 (0.84)	4.97 (1.09)
If I saw this eyewitness testify in court, I would believe what she said.	3.14 (1.42)	2.90 (1.02)



This eyewitness would not make a very good witness in court.	4.28 (1.23)	4.08 (0.98)
This witness would be very persuasive to the jury.	2.97 (1.25)	2.59 (1.23)
If I were a jury member, I would not believe this witness.	3.92 (1.32)	4.18 (1.07)
I would convict the defendant based on this identification.	2.50 (1.11)	2.10 (0.99)
The eyewitness seemed confident in her decision.	2.56 (1.25)	2.51 (1.19)
I believed the eyewitness.	2.94 (1.31)	2.84 (1.15)
The eyewitness seemed unsure about their decision.	4.47 (1.30)	4.46 (1.17)
The eyewitness probably got a good look at the perpetrator's face.	2.93 (1.05)	3.00 (1.12)
I don't think the eyewitness had a good look at the perpetrator.	4.11 (0.98)	4.00 (1.23)
The eyewitness probably didn't see the perpetrator for very long when the crime was committed.	4.83 (0.97)	4.97 (0.84)

The eyewitness was probably distracted  
during the time the crime was  
committed.

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4.56 (0.91)

4.21 (1.22)

Table 4. Perceptions of the Witness: Equal Focused, Investigator Focused, and Witness Focused Lineup Administrations

Question	M (SD)		
	Equal Focused	Investigator Focused	Witness Focused
The eyewitness probably got a pretty good view of the perpetrator.	3.58 (1.21)	3.40 (1.15)	3.38 (1.06)
The eyewitness in this case probably made an incorrect decision.	3.96 (1.04)	4.20 (1.04)	3.73 (1.04)
The eyewitness made a poor decision.	3.58 (1.32)	4.21 (1.18)	3.54 (1.14)
The eyewitness made a good decision in this case.	3.00 (1.10)	2.84 (1.11)	3.31 (1.05)
I thought the eyewitness was very certain in the decision she made.	1.92 (1.25)	2.21 (1.44)	2.69 (1.32)
The eyewitness seemed hesitant in her decision.	5.21 (0.88)	5.12 (0.83)	4.84 (1.18)

If I saw this eyewitness testify in court, I would believe what she said.	2.88 (1.26)	2.96 (1.14)	3.19 (1.30)
This eyewitness would not make a very good witness in court.	4.04 (1.16)	4.32 (0.94)	4.15 (1.22)
This witness would be very persuasive to a jury.	2.83 (1.27)	2.68 (1.25)	2.81 (1.27)
If I were a jury member, I would not believe this witness.	4.00 (1.25)	4.20 (1.22)	3.96 (1.15)
I would convict the defendant based on this identification.	2.21 (1.02)	2.24 (1.13)	2.42 (1.06)
The eyewitness seemed confident in her decision.	2.38 (1.24)	2.40 (1.15)	2.81 (1.23)
I believed the eyewitness.	2.96 (1.26)	2.60 (1.08)	3.12 (1.31)
The eyewitness seemed unsure about their decision.	4.46 (1.41)	4.44 (1.19)	4.50 (1.10)
The eyewitness probably got a good look at the perpetrator's face.	3.17 (1.13)	2.76 (0.93)	2.96 (1.18)

I don't think the eyewitness had a good look at the perpetrator.	3.96 (1.16)	4.32 (1.07)	3.88 (1.11)
The eyewitness probably didn't see the perpetrator for very long when the crime was committed.	4.88 (1.12)	5.00 (0.91)	4.85 (0.67)
The eyewitness was probably distracted during the time the crime was committed.	4.63 (1.13)	4.24 (1.13)	4.27 (1.00)

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Table 5. Perceptions of the Lineup: Bias Present and Bias Not Present Lineup Administrations

Question	M (SD)	
	Bias Present	Bias Not Present
This lineup was a fair lineup.	3.14 (1.40)	3.42 (1.13)
In my opinion, the administration of this lineup was biased.	3.94 (1.51)	3.16 (1.00)
I thought this lineup was conducted properly.	2.97 (1.44)	3.62 (1.09)
The procedure in this lineup was a good lineup procedure.	2.83 (1.34)	3.45 (1.13)
I thought the way this lineup was conducted was unfair to the suspect.	4.08 (1.36)	3.42 (1.00)
This lineup was sound.	2.86 (1.24)	3.45 (0.92)
This lineup should have been conducted differently.	4.61 (1.25)	3.84 (1.08)
This lineup looked like an easy task.	3.11 (1.26)	3.47 (1.01)

I thought the lineup task looked pretty difficult.

3.35 (1.12)

3.18 (0.98)

This lineup was unfair.

4.17 (1.20)

3.42 (0.98)

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Table 6. Perceptions of the Lineup: Equal Focused, Investigator Focused, and Witness Focused Lineup Administrations

Question	M (SD)		
	Equal Focused	Investigator Focused	Witness Focused
This lineup was a fair lineup.	2.96 (1.19)	3.08 (1.28)	3.77 (1.21)
In my opinion, the administration of this lineup was biased.	3.35 (1.40)	4.04 (1.33)	3.23 (1.14)
I thought this lineup was conducted properly.	2.96 (1.19)	3.29 (1.49)	3.64 (1.19)
The procedure in this lineup was a good lineup procedure.	2.92 (1.35)	2.92 (1.25)	3.58 (1.14)
I thought the way this lineup was conducted was unfair to the suspect.	3.79 (1.35)	4.00 (1.14)	3.46 (1.17)
This lineup was sound.	3.04 (1.06)	2.92 (1.18)	3.50 (1.07)
This lineup should have been conducted differently.	4.17 (1.31)	4.58 (1.14)	3.92 (1.16)



This lineup looked like an easy task.	3.33 (1.09)	3.13 (1.33)	3.42 (1.03)
I thought the lineup task looked pretty difficult.	3.43 (1.08)	3.30 (1.26)	3.08 (0.80)
This lineup was unfair.	3.78 (1.13)	4.17 (1.09)	3.42 (1.14)

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## **Appendix A**

Text for Informed Consent – provided on page 1 of the online survey:

Before we begin, we will need to obtain your informed consent--basically, we need for you to agree to participate in this study. No benefits accrue to you for answering the survey, but your responses will be used to help inform policy guidelines about how eyewitness evidence is collected and presented in court. There are minimal risks associated with this study and they are not expected to be any greater than anything you encounter in everyday life. If you decide to participate, you are free to stop at any time; you may also skip questions if you don't want to answer them or may refuse to submit the survey. As data will be collected using the Internet, no guarantees can be made regarding the interception of data sent via the Internet by any third party (i.e. your employer).

Confidentiality will be maintained to the degree permitted by the technology used. We strongly advise you do not use an employer issued device (laptop, smartphone, etc.) to respond to this survey.

Please read the following and click on the checkbox below if you agree:

By clicking the link below, I confirm that I have read this form and decided that I will participate in the project described above. Its general purposes, the particulars of involvement, and possible risks and inconveniences have been explained to my satisfaction. I understand that I can discontinue participation at any time. My consent also indicates that I am 18 years of age.

## Appendix B

### Non-Bias Condition Script For The Lineup Administrations

(Action directions given in parentheses)

**Det. Lenny:** Hey there, I'm Detective Lenny Brisco, we spoke on the phone. Um, I believe you initially spoke to my partner, Detective Curtis, about this. So, can you just tell me what happened, briefly?

**Witness:** Um, I was walking down West Elm Street, I had just gotten off the bus, and I was walking home, and I noticed a guy walking towards me.

**Det. Lenny:** Why do you think you noticed him?

**Witness:** Well he was walking towards me, it wasn't anything unusual.

**Det. Lenny:** Ok, go ahead.

**Witness:** Um, so he walked past me, and the next thing I know someone grabs the bag off of my shoulder and runs past me, and I realized it was the same guy that had been walking towards me before, and that's all I remember.

**Det. Lenny:** Do you remember what he looked like?

**Witness:** He was white, about 5'9" to 6 feet tall. He was wearing a grey sweatshirt and had brown hair.

**Det. Lenny:** Okay, I am going to show you a lineup of six photographs. Tell me if you see the person who robbed you. Um but, before I show you the photographs, keep in mind that the person who robbed you may not be in the photographs.

**Det. Lenny** lays out all six photographs at once. Witnesses pause and takes about 15 seconds.

Det. Lenny says "take your time." Witness engages in relative judgment process.

**Witness:** I think it's this guy...(pauses 10 seconds).

**Witness:** Yeah, it was this guy.

**Det. Lenny:** Okay, how confident are you that that's the man who robbed you?

**Witness:** I'm pretty confident.

**Det. Lenny.** Let me give you this form documenting the identification. And let me give you my card, I'll be in touch with you, and then I'm going to ask Detective Curtis to show you out. Ok?

**Witness:** Ok.

**Det. Lenny:** Thank you very much.

## Appendix C

### Bias Condition Script For The Lineup Administrations

(Action directions given in parentheses)

**Det. Lenny:** Hey there, I'm Detective Lenny Brisco, we spoke on the phone. Um, I believe my partner, Detective Curtis, originally spoke to you so, can you just tell me, more or less, what happened?

**Witness:** Well, I was walking down West Elm Street, I had just gotten off the bus, and I was walking home, and I noticed a guy walking towards me.

**Det. Lenny:** Ok, why do you think you noticed him?

**Witness:** Well he was walking towards me, it wasn't anything unusual.

**Det. Lenny:** Ok, go ahead.

**Witness:** Um, so he walked past me, and the next thing I know someone grabs the bag off of my shoulder and they run past me, it was the same guy that had walked towards me before, and that's all I remember.

**Det. Lenny:** Did you get a good look at him?

**Witness:** Yeah, he was white, uh, 5'9" to 6 feet tall. He was wearing a grey sweatshirt and he had brown hair.

**Det. Lenny:** Okay, well it sounds like you got a good look at him, which is good. Now, I have good news, we've arrested a suspect in your case. I'm gonna show you a lineup of six photographs. I want to see if you can identify him. Are you ready?

**Witness:** Yeah.

**Det. Lenny** lays out all six photographs at once. Witnesses pause and takes about 15 seconds before Det. becomes physically agitated (he taps his pen impatiently, rubs his face, and then leans forward across the table). He then asks the witness. "Do you see him?" The witness says "uh, I don't know." Det. Lenny then leans back and crossed both arms and says "take as much time as you need. We're very confident in this arrest." Witness engages in relative judgment process.

**Witness:** I think it's this guy...(pauses 10 seconds).

**Witness:** Yeah, it's this guy.

**Det. Lenny:** Okay, that's good. Good job cause, that's our man. Um, this guy's committed several other robberies in the area so we're really glad to get him off the street. Now, how confident are you that he's the guy who robbed you?

**Witness:** I'm pretty confident.

**Det. Lenny:** Ok, can you sign this form documenting your identification. I'm going to give you my card, I'll be in touch with you.

**Witness:** Ok.

**Det. Lenny:** And I'm going to ask Detective Curtis to take you out...Ok?

**Witness:** Ok.

**Det. Lenny:** Thank you so much.

**Witness:** Thanks.

## **Appendix D**

### **Complete copy of survey questionnaire-Dependent Measures**

#### **Part One**

Instructions: Your job is to evaluate the eyewitness identification you just saw on the videotape. Choose the best answer to the following questions:

1. In your opinion, do you believe the eyewitness in this case made a correct decision in the identification task? Please indicate "yes" or "no".
2. How confident are you in your choice regarding the eyewitness decision? Indicate Not at all confident, Somewhat confident, Confident, Very confident, Extremely Confident or 100% Confident.
3. Please indicate by clicking on the spectrum below the probability that the eyewitness made a correct decision in this identification task:  
  
Not at all probable to Extremely probable (out of 100)
4. In your opinion, do you believe the suspect in this case is guilty? Please indicate "yes" or "no".
5. Please indicate by clicking on the spectrum below the probability that the suspect is guilty:  
  
Not at all probable to Extremely probable (out of 100)

#### **Part Two: The Eyewitness**

Please indicate, by clicking the corresponding circle on the following 6-point scales, the extent to which you agree with the following statements:

Scale: Strongly disagree, Disagree, Somewhat disagree, Somewhat agree, Agree,  
Strongly Agree

1. The eyewitness in this case made a correct decision.
2. The eyewitness in this case probably made an incorrect decision.
3. The eyewitness made a poor decision.
4. The eyewitness made a good decision in this case.
5. I thought the eyewitness was very certain in the decision she made.
6. The eyewitness seemed hesitant in her decision.
7. If I saw this eyewitness testify in court, I would believe what she said.
8. This eyewitness would not make a very good witness in court.
9. This witness would be very persuasive to a jury.
10. If I were a jury member, I would not believe this witness.
11. I would convict the defendant based on this identification.
12. The eyewitness seemed confident in her decision.
13. I believed the eyewitness.
14. The eyewitness seemed unsure about their decision.
15. The eyewitness probably got a pretty good view of the perpetrator.
16. The eyewitness probably got a good look at the perpetrator's face.
17. I don't think the eyewitness had a good look at the perpetrator.
18. The eyewitness probably didn't see the perpetrator for very long when the crime  
was committed.
19. The eyewitness was probably distracted during the time the crime was committed.
20. I believe the person who committed the crime was in the lineup.



### **Part Three: The Lineup**

Please indicate, by clicking the corresponding circle on the following 6-point scales, the extent to which you agree with the following statements about the lineup:

Scale: Strongly disagree, Disagree, Somewhat disagree, Somewhat agree, Agree, Strongly Agree

1. This lineup was a fair lineup.
2. In my opinion, the administration of this lineup was biased.
3. I thought this lineup was conducted properly.
4. The procedure in this lineup was a good lineup procedure.
5. I thought the way this lineup was conducted was unfair to the suspect.
6. This lineup was sound.
7. This lineup should have been conducted differently.
8. This lineup looked like an easy task.
9. I thought the lineup task looked pretty difficult.
10. This lineup was unfair.

### **Part Four: The Investigator**

Please indicate, by clicking the corresponding circle on the following 6-point scales, the extent to which you agree with the following statements about the investigator:

Scale: Strongly disagree, Disagree, Somewhat disagree, Somewhat agree, Agree, Strongly Agree

1. The investigator was a good investigator for this case.
2. I thought the investigator was biased.

3. It was clear that the investigator wanted the eyewitness to choose the suspect.
4. The eyewitness was pressured into her decision by the investigator.
5. The investigator put a lot of pressure on the eyewitness.
6. The investigator was unbiased in administering this lineup.
7. The investigator was very fair in this lineup task.
8. If I were accused of a crime, I would want this investigator to administer my lineup.
9. This investigator was not very good at his job.
10. In my opinion, the investigator should conduct more lineups.
11. The investigator did not put any pressure on the eyewitness.
12. The witness probably didn't feel pressured into a decision by the investigator.

### **Part Five: The Eyewitness First Impressions**

Please rate **the eyewitness** using the following series of adjective pairs.

The scales are designed so that you can express the degree to which **the witness** seems to fit one end of the scale or the other.

The point on the scale where you click should depend upon the degree to which the word describes **the witness**. For example, if you thought Jane was extremely short, you should click the area closest to the word "Short", if we were using a Tall-Short scale.

1. Immoral  $\leftrightarrow$  Moral
2. Respectable  $\leftrightarrow$  Not respectable
3. Intelligent  $\leftrightarrow$  Unintelligent
4. Good  $\leftrightarrow$  Bad

5. Unlikable  $\leftrightarrow$  Likable
6. Trustworthy  $\leftrightarrow$  Untrustworthy
7. Honest  $\leftrightarrow$  Dishonest
8. Sincere  $\leftrightarrow$  Insincere
9. Not believable  $\leftrightarrow$  Believable
10. Convincing  $\leftrightarrow$  Unconvincing
11. Certain  $\leftrightarrow$  Uncertain
12. Not credible  $\leftrightarrow$  Credible
13. Competent  $\leftrightarrow$  Incompetent
14. Accurate  $\leftrightarrow$  Inaccurate

#### **Part Six: The Investigator First Impressions**

Please rate **the investigator** using the following series of adjective pairs.

The scales are designed so that you can express the degree to which **the investigator** seems to fit one end of the scale or the other.

The point on the scale where you click should depend upon the degree to which the word describes **the investigator**. For example, if you thought Jane was extremely short, you should click the area closest to the word "Short", if we were using a Tall-Short scale (see pairs used above for Eyewitness First Impressions)